

In the Claims:

1. (amended) [A TP2] An isolated telomerase protein 2 nucleic acid molecule encoding a polypeptide selected from the group consisting of:

- (a) the nucleic acid molecule of SEQ ID NO:13;
- (b) the nucleic acid molecule that is nucleotides 1920-2820 of SEQ ID NO:13;
- (c) the nucleic acid molecule of SEQ ID NO:19
- (d) a nucleic acid molecule encoding the polypeptide of SEQ ID NO:14, or a biologically active fragment thereof;
- (e) a nucleic acid molecule encoding the polypeptide of SEQ ID NO:20, or a biologically active fragment thereof;
- (f) a nucleic acid molecule that encodes a polypeptide that is at least 90 percent identical to the polypeptide of SEQ ID NO:14 as calculated using the computer algorithm FASTA with the default opening and gap penalties, and the scoring matrix PAM 250;
- (g) a nucleic acid molecule that encodes a polypeptide that is at least 90 percent identical to the polypeptide of SEQ ID NO:20 as calculated using the computer algorithm FASTA with the default opening and gap penalties, and the scoring matrix PAM 250;
- (h) a nucleic acid molecule that hybridizes under stringent conditions of 0.2 X SSC and 0.1 percent SDS at a temperature between 55-65C to any of (a)-(g) above; and
- (i) a nucleic acid molecule that is the complement of any of (a)-(g) above.

4. (amended) [A] An isolated nucleic acid molecule encoding the polypeptide of SEQ ID NO:14 [of] or SEQ ID NO:20.

19. (amended) A process for producing a [TP2] telomerase protein 2 polypeptide comprising the steps of:

- (a) expressing a polypeptide encoded by the nucleic acid molecule of claim 1 in a suitable host; and
- (b) isolating the polypeptide

26. (amended) A method of increasing the proliferation rate of a cell, comprising expressing in the cell [a] the nucleic acid of SEQ ID NO:13 or SEQ ID NO:19 [encoding TP2] or a